

WHAT IS CLAIMED IS:

1. A method for driving a plasma display panel (PDP) having a plurality of display cells arranged in a matrix and each receiving therein discharge gas, first and second sustaining electrodes extending in a first direction of said matrix of display cells, and a data electrode extending in a second direction perpendicular to said first direction, said method comprising the steps of selectively applying a writing pulse between said first sustaining electrode and said data electrode, and applying a sustaining pulse train between said first sustaining electrode and said second sustaining electrode, said sustaining pulse train having a repetitive frequency  $f$  defined as follows;

$$f \geq \mu_i V / (\pi d^2)$$

- wherein  $\mu_i$ ,  $V$  and  $d$  are an ion mobility of said discharge gas, a peak voltage of said sustaining pulse train and a distance between said first sustaining electrode and said second sustaining electrode, respectively.

2. The method as defined in claim 1, wherein said repetitive frequency  $f$  is larger than 3 MHz.
3. The method as defined in claim 1, wherein said sustaining pulse train has a sinusoidal waveform.

8. The PDP device as defined in claim 7, wherein said first and second sustaining electrodes are disposed on said first panel, and said data electrodes are disposed on said second panel.

9. The PDP device as defined in claim 7, wherein said first sustaining electrodes are disposed on said first panel, and said second sustaining electrodes and said data electrodes are disposed on said second panel.

10. The PDP device as defined in claim 8, further comprising a third sustaining electrode on said second panel.

4. The method as defined in claim 3, wherein said sustaining pulse train applying step includes applying said sustaining pulse train to said first sustaining electrode (12) while maintaining said second sustaining electrode (13) at a constant voltage.

5. The method as defined in claim 3, wherein said sustaining pulse train applying step includes applying first and second sinusoidal voltages to said first and second sustaining electrodes (12, 13), respectively.

6. The method as defined in claim 1, further comprising the step of applying a preliminary discharge pulse between said first sustaining electrode (12) and said second sustaining electrode (13) before writing pulse applying step.

7. A plasma display panel (PDP) device comprising first and second panels (10, 11), a plurality of display cells (40) sandwiched between said first panel (10) and said second panel (11) in a matrix and each receiving therein discharge gas, first and second sustaining electrodes (12, 13) extending in a first direction of said matrix of display cells, and a data electrode (19) extending in a second direction of said matrix of display cells perpendicular to said first direction, said first sustaining electrode (12) being disposed for each row of said matrix of display cells, said second sustaining electrode (13) being disposed for a plurality of rows of said matrix display